WHAT IS CLAIMED IS:

1. A thin film magnetic memory device comprising:

a plurality of magnetic memory cells permitting random accesses; and

a program element storing information in a fixed manner; wherein

each of said plurality of magnetic memory cells includes a conductive magnetic film formed of a plurality of layers,

said program element includes a link portion electrically connected between first and second nodes and fusible by an external input, and

said link portion is configured with the same layer as at least one of said plurality of layers constituting said conductive magnetic film.

2. The thin film magnetic memory device according to claim 1, wherein

said conductive magnetic film includes

a first layer forming a magneto-resistance element having a magnetic tunnel junction,

a second layer forming a via contact for connecting said magneto-resistance element to another interconnection, and

a third layer forming a lead interconnection for connecting said magneto-resistance element to another interconnection, and

said link portion has the same layer as said first layer.

3. The thin film magnetic memory device according to claim 1, wherein

said conductive magnetic film includes

a first layer forming a magneto-resistance element having a magnetic tunnel junction,

a second layer forming a via contact for connecting said magneto-resistance element to another interconnection, and

a third layer forming a lead interconnection for connecting said magneto-resistance element to another interconnection, and

said link portion has the same layer as said third layer.

4. The thin film magnetic memory device according to claim 1, wherein an electrical contact structure between respective one of said first and second nodes and said link portion is identical to an electrical contact structure between another node provided in the same interconnection layer as respective one of said first and second nodes and each said magnetic memory cell.

5. The thin film magnetic memory device according to claim 4, wherein

said conductive magnetic film includes

a first layer forming a magneto-resistance element having a magnetic tunnel junction,

a second layer forming a via contact for connecting said magneto-resistance element to another interconnection, and

a third layer forming a lead interconnection for connecting said magneto-resistance element to another interconnection, and

said electrical contact structure between respective one of said first and second nodes and said link portion has the same layer as said first layer.

6. The thin film magnetic memory device according to claim 1, wherein said link portion can be blown by external laser irradiation.

7. A thin film magnetic memory device comprising:

a plurality of magnetic memory cells permitting random accesses; and

a program circuit storing information in a fixed manner; wherein

each of said plurality of magnetic memory cells includes a tunneling magneto-resistance element formed of a plurality of layers including a conductive magnetic film and an insulating film and having a resistance changed in accordance with magnetically written data,

said program circuit includes

a first program element connected between first and second nodes, and formed of said plurality of layers as with said tunneling magneto-resistance element,

an amplifier portion reading said information in accordance with a resistance between said first and second nodes, and

a first breakdown voltage apply portion applying a first voltage stress capable of causing breakdown of said insulating film in said plurality of layers constituting said first program element, between said first and second nodes as appropriate,

an upper layer side and a lower layer side of said plurality of layers constituting said first program element are electrically connected to one and the other of said first and second nodes, and

said first program element is shaped such that at least a portion of its portion electrically connected between said first and second nodes is fusible with a first external input.

8. The thin film magnetic memory device according to claim 7, wherein

said first external input is laser irradiation applicable before a packaging step of said thin film magnetic memory device, and

said first voltage stress is applied after said packaging step of said thin film magnetic memory device.

9. The thin film magnetic memory device according to claim 7, wherein

said program circuit further includes

a second program element connected between a third node and said second node and formed of said plurality of layers as with said tunneling magneto-resistance element, and

a second breakdown voltage apply portion applying a second voltage stress capable of causing breakdown of said insulating film in said plurality of layers constituting said second program element, between said second and third nodes as appropriate,

an upper layer side and a lower layer side of said plurality of layers constituting said second program element are electrically connected to one and the other of said second and third nodes,

said second program element is shaped such that at least a portion of its portion electrically connected between said second and third nodes is fusible with a second external input, and

said amplifier portion reads said information in accordance with comparison of the resistance between said first and second nodes with a resistance between said second and third nodes.

10. The thin film magnetic memory device according to claim 9, wherein

each of said first and second external inputs is laser irradiation applicable before a packaging step of said thin film magnetic memory device, and

each of said first and second voltage stresses for breaking said insulating film is applied after said packaging step of said thin film magnetic memory device.

11. A thin film magnetic memory device comprising:

a plurality of magnetic memory cells permitting random accesses; and

a program circuit storing information in a fixed manner; wherein

each of said plurality of magnetic memory cells includes a tunneling magneto-resistance element formed of a plurality of layers including a conductive magnetic film and an insulating film and having a resistance changed in accordance with magnetically written data,

said program circuit includes

a first program element formed of said plurality of layers as with said tunneling magneto-resistance element,

a first program interconnection electrically connected to said first program element and a first node,

a first current driving portion for supplying said first program

interconnection with a current for magnetically writing data to said first program element, and

an amplifier portion reading said information in accordance with a resistance between said first and second nodes,

an upper layer side and a lower layer side of said plurality of layers constituting said first program element are electrically connected to one and the other of said first program interconnection and said second node, and

said first program interconnection is shaped such that at least a portion of its portion electrically connected between said first program element and said first node is fusible by a first external input.

12. The thin film magnetic memory device according to claim 11, wherein said first external input includes external laser irradiation.

13. The thin film magnetic memory device according to claim 11, wherein

said program circuit further includes

a second program element formed of said plurality of layers as with said tunneling magneto-resistance element,

a second program interconnection electrically connected to said second program element and a third node, and

a second current driving portion for supplying said second program interconnection with a current for magnetically writing data to said second program element,

an upper layer side and a lower layer side of said plurality of layers constituting said second program element are electrically connected to one and the other of said second program interconnection and said second node,

said second program interconnection is shaped such that at least a portion of its portion electrically connected between said second program element and said third node is fusible with a second external input, and

said amplifier portion reads said information in accordance with comparison of the resistance between said first and second nodes with a resistance between said second and third nodes.

14. The thin film magnetic memory device according to claim 13, wherein each of said first and second external inputs includes external laser irradiation.